

REMARKS

Claims 1-11 are pending in the present application. Applicant has amended claims 1, 7, and 9, and has canceled claim 3. No new matter has been added.

The Examiner rejected claims 1-4 and 7-11 under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 6,462,798 (Kim, *et al.*) in view of U.S. Patent No. 4,917,471 (Takeo, *et al.*). The Examiner rejected claims 5-6 under 35 U.S.C. §103(a) as obvious over Kim in view of Takeo and further in view of U.S. Patent No. 6,275,274 (Kanemori, *et al.*).

Applicant respectfully traverses these rejections.

Applicant urges that the Examiner has failed to make out a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the combination of prior art references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

The Examiner concedes that Kim does not disclose a B cell gap differentiated from an R cell gap or a G cell gap, wherein the R cell gap indicates the thickness of the liquid crystal layer at the region of the red color filter, the G cell gap indicates the thickness of the liquid crystal layer at the region of the green color filter, and the B cell gap indicates the thickness of the liquid crystal layer at the region of the blue color filter, as claimed in Applicant's claim 1, but then cites Takeo as disclosing this limitation. The Examiner also cites Takeo as teaching that the the B cell gap, the R cell gap and the G cell gap are results effective variables for tuning spectral characteristics wherein the B cell gap, the R cell gap and the G cell gap are differentiated from each other by: $R \text{ cell gap} - G \text{ cell gap} < G \text{ cell gap} - B \text{ cell gap}$.

Applicant's respectfully disagree with this interpretation and urges that Takeo teaches away from Applicant's gap differentiation. Takeo is directed to improving alignment by reducing the stepped difference within a substrate plane caused by the arrangement of color filters, and is thus directed to providing color filters with substantially the same film thickness.

Applicant's claim 1 is directed to a vertically aligned liquid crystal display with enhanced picture quality and reduced color shift, the reduced color shift being accomplished by the B cell gap, the R cell gap and the G cell gap being differentiated from each other. Takeo, by teaching reducing the thickness differences of color filters, teaches away from color filter gaps being differentiated from each other. Further, since Takeo is not concerned with reducing gray scale color shift, there is no suggestion or motivation in Takeo for adjusting the B cell gap, the R cell gap and the G cell gap for tuning desired spectral characteristics. In addition, due to the difficulties of controlling the thickness of color filters to produce the desired difference in cell gaps, more than routine experimentation is needed to find the optimal relationship between the cell gap differences so as to yield to desired processing efficiency. See, e.g., Applicant's specification, pg. 22, line 20 to pg. 25, line 13.

Therefore, Takeo neither motivates nor suggests Applicant's B cell gap, the R cell gap and the G cell gap being differentiated from each other by $R \text{ cell gap} - G \text{ cell gap} < G \text{ cell gap} - B \text{ cell gap}$. Furthermore, successfully modifying the teachings of Takeo would still require experimentation, if not undue experimentation, from one of ordinary skill in the art before there is any reasonable expectation of success. Thus, a *prima facie* case of obviousness of Applicant's amended claims 1, 7, and 9 cannot be sustained. Reconsideration and withdraw of these rejections are respectfully requested.

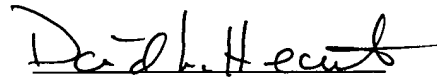
Claims 2 and 4-6 depend from claim 1, claim 8 depends from claim 7, and claims 10-11 depend from claim 9, and are thus patentable for at least the same reasons as claims 1, 7, and 9, respectfully. Reconsideration and withdraw of these rejections are respectfully requested.

CONCLUSION

Applicant urges that claims 1-2 and 4-11, as amended, are in condition for allowance for at least the reasons stated. Early and favorable action on this case is respectfully requested.

Respectfully submitted,

By:



David L. Heath

Reg. No. 46,763

Attorney for Applicant

Mailing Address:

F. Chau & Associates, LLC
130 Woodbury Road
Woodbury, NY 11797
(516) 692-8888
(516) 692-8889 (FAX)